Detroit Intermodal Freight Terminal Project
Phase II – EPE/EIS
Proposed Work Plan Amendment 3

Prepared for the
Michigan Department
of Transportation

Prepared by
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Introduction

The Detroit Intermodal Freight Terminal Project Feasibility Study concluded in December 2001 that development of a consolidated intermodal terminal in Wayne County is feasible. The Michigan Department of Transportation then began the Early Preliminary Engineering (EPE) Study / Environmental Impact Statement (EIS) on a project to consolidate all intermodal activity in Southeast Michigan into one terminal in Southwest Detroit. This work plan amendment expands the original EPE/EIS effort.

The original Work Plan focused on the No Action alternative and an option to consolidate intermodal activity in Southeast Michigan by bringing all four Class I railroads operating in Michigan into the site at the Detroit-Livernois Yard in Southwest Detroit, with federal funding and oversight. The analysis will now expand to other terminals. In doing so, it is recognized that NS intermodal operations will be consolidated at the Detroit-Livernois Yard. And, CSX will also operate its intermodal operation at the Detroit-Livernois Yard. These conditions will be common to all alternatives. A new alternative called "Improve/Develop Existing Terminals, with Federal Funding/Oversight," will consider physical expansion at: 1) the Canadian Pacific (CP) – Expressway Terminal, east of I-75 and south of Michigan Avenue, behind the Michigan Central Depot; 2) CP – Oak Terminal, in the northwest quadrant of the interchange of I-96 with the Southfield Freeway; and, 3) the Canadian National (CN) – Moterm Terminal, north of 8 Mile Road and west of Woodward Avenue. Under the Improve/Develop Existing Terminals Alternative, the Detroit-Livernois Yard would likely not expand although intermodal operations will use more of the existing terminal area. Additional work on these four existing terminals will include efforts in the following tasks.

Under Alternatives 2 and 3 improvements with federal funding/oversight will include those road and rail adjustments external to the terminal proper to accommodate the intermodal demand while addressing capacity needs and interactions with other alternatives. For example, under both Alternative 2 and 3, the continued and future development of AMTRAK service will be considered and, as appropriate, rail improvements will be developed to accommodate as the proposed intermodal terminal develops. The same will be the case for the proposed commuter rail service between Ann Arbor and Detroit.

It is also noted that while Alternative 2 involves possible actions at four separate terminals, the impacts of those actions will be added together to produce an "apples-to-apples" comparison with the impacts in Alternative 3. Nevertheless, the conditions at each terminal in Alternative 2 will be fully analyzed and discussed in the environmental documentation.

- ?? Task 211M – Conduct Meetings/Communications
- ?? Task 2120 – Expand Traffic Analysis Report
- ?? Task 2160 – Update Scoping Documentation
- ?? Task 2310 – Expand Technical SEE Studies
- ?? Task 2320 – Conduct Additional EPE Aerial Photography and Mapping
- ?? Task 2330 – Collect Additional EPE Geotechnical Data
- ?? Task 2360 – Prepare Additional Documentation for DEIS
- ?? Task 2380 – Prepare Additional DEIS Public Availability/Public Hearing
- ?? Task 2510 – Conduct Additional Analysis to Determine Recommended Alternative
- ?? Task 2530 – Prepare FEIS
- ?? Task 2550 – Obtain ROD
- ?? Task 2810 – Conduct Additional Project Area Contamination Surveys (PACS)
- ?? Task 2820 – Conduct Additional Preliminary Site Investigations (PSI) for Contamination

This amended work plan focuses on:

1. Revising and updating the purpose and need for the project.
2. Developing updated forecasts of intermodal activity for the following conditions: a) No Action; b) four existing terminals improved/developed with federal funding/oversight; and, c) an expanded terminal at the Detroit-Livernois Yard at which all regional intermodal activity is consolidated, with federal funding/oversight.
3. Developing an alternative that reflects the physical expansion of each existing terminal to accommodate projected growth.
4. Determining the environmental impacts at each site and the engineering efforts needed to accommodate growth and provide road and rail access to the sites.
5. Involving the public in a meaningful way at the three sites, plus ongoing efforts at the Detroit-Livernois Yard.
6. Satisfying regulatory agencies.
7. Ensuring that the process has been properly documented.

Task 211M – Conduct Meetings/Communications

The extensive program of meetings and communications of the original Work Plan will be extended to cover areas surrounding the CP Expressway, CP Oak and CN Moterm terminals. Officials and businesspersons will be engaged in the process. Media activities and Web site updates will continue, taking into consideration the multiple terminals. Monthly coordination with MDOT staff, the project's Steering Committee, and the Local Advisory Council will likewise continue. One field trip will be conducted so Steering Committee and LAC members can experience directly the nature and effects of intermodal activity at the four existing intermodal terminals.

Local Community

The Local Advisory Council (LAC) will be expanded to include membership from residential areas near the existing intermodal terminals to be studied for expansion. The LAC will continue to convene about once each month to provide input and guidance to the preparation of the EIS. Each meeting will be preceded by an agenda distributed at least a week in advance. Key issues to be addressed include air quality, noise, and traffic. Notes will summarize each gathering of the LAC and the project's technical reports will be prepared to be responsive to this input.

General Public

The original outreach program will be broadened to focus on the areas around the CP Expressway, CP Oak and CN Moterm terminals to encourage attendance at the planned public forum-type meetings that precede the formal EIS public hearing(s) and the wrap-up public forum in the last month of the project. Each of these public meetings will be preceded by mailing notices to residents in the local community as well as to every local, state and federal elected official representing each area. The list of the DIFT "observers" will also be expanded to accompany the more extensive analysis area. Observers are those people/groups that demonstrate an interest in the DIFT Project. A formal public hearing(s) will be held as discussed further in Task 2380. Notes will be prepared to summarize each meeting and a transcript will record comments made at the EIS public hearings.

Task 2120 – Expand Traffic Analysis Report

This effort will require new traffic analysis studies for each of the four intermodal terminals. The analysis will include an examination of each terminal layout, the location(s) of terminal gates, and the terminal's

activity forecasts. The traffic studies will support the analysis of noise and air quality impacts. The originally planned Traffic Analysis Report (TAR) will be expanded to cover the additional analysis. To the extent necessary, and in cooperation with MDOT, additional traffic counts will be conducted to best reflect current and expected conditions. Traffic analysis will be done with Highway Capacity Manual (HCM) software. CORSIM will be applied only where it is deemed necessary.

The following discussion presents the process to develop a commodity flow model designed to support the analysis of three Detroit Intermodal Freight Terminal Project alternatives. The model is patterned after the commodity flow model developed by the Florida Department of Transportation. Such a model will allow an understanding of how commodity flows will change over time in response to changes in the configuration of the Detroit Intermodal Freight Terminal, changes in travel time and costs on key highway routes, and other changes in the cost and utility of travel for other modes inside and outside Michigan.

Commodity Flow Model-Available Data

Network and Zones

MDOT has a model, which provides a truck trip table for the base and future years at the MDOT statewide zone level. This system contains 2392 zones (Michigan zones, states and provinces), plus some special freight survey locations. However, this system provides no information on commodity flows and choice of modes. MDOT also has a complete truck model.

Corradino will use MDOT's network and TAZ system as a basis for the commodity flow model.

Commodity Flows

MDOT has obtained the Transearch database from Reebie Associates (known hereafter as the Reebie data). It reports commodity flows in annual tons by 4-digit STCC code. The geographic basis is states, Canadian Provinces and Michigan Counties. The modes are rail (carload, intermodal), trucks (truckload, less-than-truckload, private, total), air and water.

Corradino is in possession of the 1996 Reebie database provided by MDOT. It is Corradino's understanding that Michigan has purchased the 2000 version. The latter is intended to become part of the basis for the model. Also, the Reebie data do not contain data relating to Mexican trade. Reebie offers the Mexican data as a separate product. It is assumed this product will be purchased by MDOT for the DIFT project.

It is also important to understand commodity flows that pass through Michigan, but begin and end outside Michigan. These movements would be state-state, province-state, and Mexico-province. It is assumed this set of data will also be purchased by MDOT from Reebie for the DIFT project.

Employment and Population

Employment data by 4-digit SIC codes for all Michigan Counties are available from the Census Bureau's County Business Patterns. Similar data are generally available for the other states at both state and county levels. (There might be forecasts for the other states from government and commercial sources.)

MDOT's passenger statewide model has base (2000) and future year (2025) estimates for the 2392 TAZs for population and six employment classes:

1. manufacturing,
2. other basic,
3. retail,
4. services,
5. wholesale and
6. other.

Population is also available from the U.S. Census.

A Complete Commodity Flow Model

The Florida model, the development of which Corradino is involved, is a good prototype for a complete commodity flow model. The Florida model was developed almost exclusively from Reebie data. The Florida model was implemented using Tranplan. The proposed Michigan model would be implemented in TransCAD.

Trip Generation

In Florida, the model was developed on the basis of Reebie data for 67 Florida counties, some important Zip Code areas, subdivisions of neighboring states, and the remainder of the states. It estimates annual tons of freight, by 14 commodity groups (aggregations of STCCs) produced by and attracted to each county as a function of employment by SIC code and population. For the Florida model, a regression analysis was performed on the Reebie data and population and employment data. This is also proposed for Michigan. The

Florida trip generation model is applied at a statewide TAZ level. The Florida employment data by 2-digit SIC code were allocated to the 504 statewide TAZs on the basis of the 3 types of employment in the statewide passenger model. This is also proposed to be done for the 2392 Michigan statewide TAZs using the 6 employment types in the Michigan model noted above. This method also would allow forecasts to be made using MDOT's statewide model employment estimates through the year 2025. Commodities to and from other states and Canada would have to be estimated and input to the model.

Trip Distribution

In Florida, the Reebie data provided the information needed for the gravity model trip distribution process. For Michigan, it is proposed that the consultant will develop a trip distribution model from the Michigan Reebie data. The average travel time and distance for each commodity group will be determined by calculating trip length frequency distributions for time and distance from the Reebie flow table and Michigan network skims.

Mode Split

Again, in Florida, Reebie data were used to fit a logit mode split model, which can reflect shifts between trucks, carload rail and intermodal rail. A program called ALOGIT was used to estimate the logit model in Florida (Florida did not use TransCAD). The consultant has the ALOGIT computer program. However, for the Michigan models, the logit calibration facilities of TransCAD will be used to estimate the logit models, as TransCAD will be the modeling platform. As an alternate approach, the Florida logit coefficients could be "borrowed," but only if the commodity groups established for Michigan were similar to the ones used in Florida.

Regardless of the final approach, the mode shares for all possible trip interchanges for each commodity group will be estimated. There will be one matrix for each commodity group (in Florida, 14 groups) and mode (truck, intermodal rail, carload rail, air and water). In Florida, there were 70 tables.

One of the inputs to the model is value per ton for each commodity group. If the Florida structure is used, then the Florida values will also be used. If not, the values for Michigan groups will be developed.

The Florida mode split model is applied in two different ways. If base year mode shares between a pair of zones for a given commodity can be estimated from the Reebie data, an incremental logit model is used. The incremental logit model estimates how mode shares would change from the base condition. However, there

may be cases where mode shares cannot be estimated from the Reebie data. An example is when the Reebie data show that there is no flow for a given commodity between a pair of zones, but in the alternative that is being tested there is a commodity flow. In this case, the full logit model is used to estimate the mode shares.

It is proposed to develop a similar model for Michigan. In doing so, there are several key assumptions:

- There is only one network -- the highway network.
- Mode shares are determined from:
  - The existing share, as indicated by the Reebie data.
  - The utility, or change in utility for making the trip (shipping the goods) by the truck, carload rail, and intermodal rail modes.
  - The explanatory variables as identified in the Florida model, i.e., the natural log of travel time multiplied by commodity value per ton and travel cost. The form of the Florida utility equation was taken from a stated-preference survey for a freight study in New York, which will be used here.
    - The highway (truck) cost is $0.0575 per mile traveled.
    - The carload rail cost is $12 + $0.025 per mile.
    - The intermodal rail cost is $26 + $0.028 per mile.
    - The highway time is INT((distance/50+8)/18)*8) + distance/50, which represents travel at 50 MPH and an 8 hour rest period after every 10 hours of travel, in accordance with the Hours of Service regulations.
    - The carload rail time is 60 hours plus distance/20 MPH. The intermodal rail time is 24 hours + distance/22.75 MPH.
- Water and Air mode shares are constant.

The consultant proposes to build a procedure into the model to add certain values to the utility expression, noted above, to represent items like the time and cost between truck and rail in Chicago. A better definition of these procedures will be developed by the consultant before the mode split model is fully defined and developed.

Payload Model

The payload model estimates daily origin-to-destination (OD) truck trips (vehicles) from annual OD tons as a function of the commodity and trip distance. In Florida, this model was estimated from the federal Vehicle

Inventory and Usage Survey (VIUS). This model could be used directly for Michigan, if the Florida commodity groups are used. Otherwise, the payload model will be estimated from the VIUS data.

Truck Assignment Model

In Florida, trucks were assigned to the statewide roadway network on an "all-or-nothing" basis. The assumption is that long-distance trips use a minimum travel path that is unaffected by peak hour congestion, generally by scheduling the travel to occur at other times. MDOT used the same method in their truck model. The Michigan model would use a similar algorithm.

External Model

?? Through Traffic

Florida has almost no through (external-external) trips because it is a peninsula. But through trips for Michigan are significant. So, the Michigan model will account for through trips if it is important to match truck counts. The need for MDOT to purchase additional Reebie data to address this issue is noted.

?? External-Internal and Internal-External Traffic

The Florida model requires as an input the number of tons by commodity group for flows with one end in Florida and the other end outside Florida. A similar estimate would have to be made for Michigan, using the Reebie data. The consultant will develop a method to “grow” the non-Florida end so future year forecasts can be made.

Terminals

Florida handled external terminals (ports and airports), where goods “appear” from an outside area, as special generators. They are special generators because the number of tons generated at the port and airports cannot be explained by employment. Similar information will be developed from the Michigan Reebie data. Assumptions for future year forecasts also will be made.

Possible Shortcuts

There are several shortcuts that could be taken in the development of this proposed analysis tool.

?? Limit the geographical area – This might simplify the data handling and model application time. However, a good analysis framework is already available for the 2392-zone Michigan statewide model. Aggregating the geography might prove more effort than simply dealing with all TAZs. **This possible shortcut is not recommended at this time**.

?? Commodity groups – Florida commodity groups should to be modified to account for the automotive industry. Furthermore, it may not be necessary to estimate a model for all of the commodity groups. All that may be needed is automotive. But, if only certain commodities are modeled, then resulting truck volumes have no chance of matching truck counts on the highway network. If only an automotive commodity group (or some other limited set) were modeled, it would greatly simplify the effort because models for all of the other commodity groups (trip generation, distribution and mode split) would not need to be estimated. **The recommended approach is to examine the Reebie database and model only the commodity groups that are important for the Detroit intermodal market.**

List of Tasks

This section presents a list of the model development, data development, data analysis and alternative testing tasks

?? Model Development

- Obtain new Reebie Data (MDOT) – Year 2000 Transearch, plus Mexico, and through data (state-state, state-province, province-Mexico).
- Obtain VIUS survey data (consultant and MDOT) – These data would be useful for the tons-to-truck (vehicle) model.
- Review Reebie Data Definitions (consultant and MDOT) – This covers the effort needed to completely understand the definitions of the data purchased from Reebie. Reebie would be expected to provide documentation with their products.
- Refine Model Specifications (consultant and MDOT) – The model described in this paper would be refined as indicated by the data, and discussions within the consultant team and with MDOT.
- Define Commodity Groups (consultant and MDOT)– The first thing here is to determine which STCC groups should be modeled. This is more of a policy/project management issue than a modeling issue, but the decision must be made on the front end because it will govern much of the work effort.

?? Data Development

- Estimate value/ton of each Commodity Group – The mode split model requires an estimate of the value per ton of each commodity group. The consultant will review the literature and modeling performed in other areas to define the values.
- Establish modal networks with "hooks" for time and cost savings – The consultant will define how time and cost savings will be integrated into the model.
- Assemble Employment data – The consultant will develop data on population and employment for states and provinces from Census data.
- Allocate employment data to TAZs – Using the Census employment by SIC code (county level), and the Michigan Statewide model data for 2000 and 2025 (TAZ level), the consultant will develop a file, linked to the Statewide model TAZ system, of 2000 and 2025 population and employment by two-digit SIC code.
- Assemble Reebie Data by Commodity Group – Using the Reebie data made available through MDOT, and the decisions on commodity groups, the consultant will develop a spreadsheet with the number of annual tons of each commodity group produced and attracted to each county in Michigan, state, and province. Add population and employment by SIC code to the spreadsheet.
- Assemble Reebie trip tables by Commodity Group and Purpose – The consultant will develop trip tables of commodity flows from the Reebie data. There will be one table for each commodity group and mode. Tables will be needed at both the county and TAZ levels.
- Establish validation targets – The consultant will establish validation targets that define measured commodity flows. The degree to which the model replicates observed targets would be used to judge the predictive power of the model.
- Perform limited truck counts/interviews – The consultant will perform a limited number of truck county and supplier/shipper interviews to allow reasonableness checks to be performed on model results for current (2002) conditions.

?? Data Analysis

- Develop trip generation models – The consultant will conduct a statistical analysis to determine which SIC code employment variables best explain the productions and attractions. Then linear regression will be used, forced through the origin, to develop production and attraction equations for each commodity group. The dependent variables will be annual tons produced and attracted for each commodity group at each County. The independent variables will be employment by SIC code and population. This analysis will be conducted at the county level.

- Determine average trip time and distance by commodity group – The consultant will use average travel times and costs determined from the MDOT networks.
- Develop trip distribution (gravity) models – A gravity model for each commodity group will be developed by the consultant from the Reebie data.
- Develop base year utility files – In this step, the utility values used by the mode split model will be developed by the consultant from the network on a county level for calibration.
- Calibrate logit models – TransCAD's logit calibration function will be used by the consultant to calibrate the logit expressions.
- Develop assignment models – All-or-nothing assignment models will be developed by the consultant within TransCAD.
- Develop tons to trucks and lifts models – If the commodity groups are different from Florida's, the consultant will calculate the value per ton for the Michigan commodity groups, and use VIUS to recalculate the payload table.
- Implement the models for application and test – Caliper GISDK scripts will be developed by the consultant to simplify model application and testing.
- Validate the model – The consultant will validate the model to ensure it replicated observed data using the validation measures defined earlier.

?? Test the Alternatives – This task is part of the overall DIFT analysis, i.e., is applied to all alternatives.

- Specify the alternatives – The consultant will define the DIFT alternatives in terms of the model. It is expected that future year applications will be for 2025, and that changes in travel time and costs will be defined for the DIFT alternatives.
- Apply the model – The TransCAD commodity flow model will be used by the consultant to test the DIFT alternatives.
- Analysis of results – Model inputs and results will be displayed by the consultant in tables, charts and maps as necessary. These products will support the TAR and the EIS.

Train Operations Forecasting

The following approach will be used in translating commodity for model results to train operations at each terminal.

- ?? Obtain current train operating information (number of trains, type, speed, etc.) for rail lines serving existing terminals areas (i.e., Livernois, CPE, CP Oak, CN Moterm).
- ?? Forecast conventional train operations for 2025 on rail lines that serve the terminal area.
- ?? Determine the number of intermodal trains serving each terminal based on 2025 forecasts. Utilize railroad input on average train size (units/train).
- ?? Determine total train volumes on rail lines serving each terminal area.
- ?? Provide speed and other information necessary for noise and other environmental assessments.

Task 2160 - Update Scoping Documentation

This task will update, in cooperation with MDOT, the Scoping Information Packet distributed in conjunction with the DIFT Resource Agency scoping meeting held September 19, 2002. A second formal scoping meeting for resource agencies will be conducted. It will include information related to forecasts, the project's purpose and need, and the Improve/Develop Existing Terminals, with Federal Funding/Oversight alternative.

Task 2310 - Expand Technical SEE Studies

Analysis of the social, economic and environmental effects of the alternatives is the scientific and technical underpinning of an environmental document and will support the decision that will lead to a recommended alternative.

The SEE studies will make extensive use of comparative tables and matrices to summarize clearly the differences between the No Action and each of the action alternatives. It is noted that, in analyzing the Improve/Develop Existing Terminal, with Federal Funding/Oversight alternative, each SEE issue will be documented and discussed in the DEIS for each of four existing terminals. Then these issues, where appropriate (e.g. potential relocations) will be "rolled up," (i.e., added together) to develop a single statistic that represents the Improve/Develop Existing Terminals, with Federal Funding/Oversight alternative. Supporting methodologies used in reaching conclusions will be provided. Mitigation measures will be discussed in appropriate detail for each terminal.

Below is a summary discussion of the approach to each of the NEPA analysis categories in the order normally considered in an MDOT EIS. It is important to note that while a number of the following issues

will be limited to direct impacts within a defined project footprint, economic impacts and indirect/cumulative effects cannot be that narrowly limited, and will be analyzed from broader perspectives.

Traffic and Transportation – The Traffic Analysis Report (TAR) produced in Task 2120 will be summarized in the EIS. Based upon new forecasts for intermodal activity (containers, trailers) and trucks, it will cover all alternatives using No Action as a baseline. The traffic effects expressed as different measures of effectiveness, including volume-to-capacity ratios, delay and level-of-service will be the focus of this analysis. Work will build on traffic counts already conducted at intermodal terminal gates. Additional traffic counts will be conducted at critical intersections used by vehicles serving the intermodal yards, as needed. If capacity limitations or other infrastructure shortcomings are found through the traffic analysis using HCS, these will be identified for engineering analysis. Microsimulation and CORSIM models will be applied, if deemed necessary.

Relocation – Estimates of land acquisition needs to expand the existing intermodal terminals to meet forecast demand will be performed by the consultant. Likewise, the acreage needs will be translated into a footprint oriented in a way that the new land could reasonably be used to support intermodal operations. These footprints will be developed in consultation with the railroads. This process will identify the parcels that may be acquired at each terminal site using aerial photography and available GIS databases. The potential of relocating residential displacees within the project area, possibly on remnant parcels, will be determined. The analysis will differentiate between full versus partial acquisitions. The character and composition of the affected area will also be examined using U.S. Census and other available socioeconomic data, field observations, and information brought forward by those affected (official neighborhood plans). Business relocation data will involve employment estimates and the availability of land suitably zoned for those uses to be relocated. Interviews of possible relocatees and the Conceptual Relocation Plan will be the responsibility of MDOT, with support of the consultant.

Social Impacts/Community Cohesion – This analysis will examine how the "footprint" of improvements at each intermodal terminal could disrupt key segments of the community and/or important access patterns. Analysis will determine whether there are any deleterious impacts on school access, bus routes, emergency service access areas or coverage, and other forms of community interaction. The character and composition of the area's population will be examined using U.S. Census information and other available socioeconomic data. This impact section will also address considerations related to pedestrians and bicyclists. Documents will be reviewed to assure the results of this project are consistent with any planned bicycle routes and

pedestrian facilities. All new work will be sensitive to maintaining or improving bicycle and pedestrian movements.

Environmental Justice in Minority and Low-income Populations – Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations" protects low-income, specific minority and special-needs populations from bearing an undue proportion of negative impacts from federally-funded projects. The expansion of existing terminals will be examined using 2000 U.S. Census data in cooperation with SEMCOG-compiled data to assess the environmental justice issues.

Economic Impacts – Expansion of the terminals will be incorporated into the REMI analysis. Effects on the economy of CP Oak and CN Moterm "local" areas will be developed in addition to the "local area" accompanying the Detroit-Livernois Yard / CP Expressway area. Additionally, economic impacts (jobs, income, taxes gained and lost) will be defined for: 1) the remainder of Wayne County outside the "local area;" and, 2) the remaining six counties in the SEMCOG region. This includes the effects of infrastructure improvements and the conversion of land to uses supportive of the alternative.

Land Use, Urban Development, and Associated Secondary Development – The direct effects on land use of each terminal's proposed expansion, and transportation facilities to serve it, will be measured. This translates into relocations and the number of acres of land taken by category. Interviews will be conducted with rail industry representatives to determine the degree to which secondary development may follow intermodal expansion, as it has elsewhere.

Noise – Federal Transit Administration (FTA) noise analysis procedures will be used in this analysis. The Community Noise Model Version 3.1 developed at the University of Central Florida will be used, if it has advanced sufficiently for productive use in the EIS, and it is deemed acceptable by professional noise analysts and FHWA. This work will determine which sensitive receptors will experience noise levels that approach or exceed established noise abatement criteria in the area around each intermodal facility. The sites at which that occurs will be evaluated in terms of MDOT's Noise Policy to determine whether abatement is feasible and reasonable. If it is, EPE design of noise walls or berms will be done.

Air Quality – The region's status relative to National Ambient Air Quality Standards (NAAQS) will change when EPA's 8-hour ozone standard is implemented. The region will likely shift from "maintenance" to "non-attainment" before the DEIS is complete. This may affect the type of air quality conformity analysis that is performed for the EIS. And, procedures related to conformity analysis are likely to be different than

they have been in the past. In any case, air quality analysis will be performed in consultation with MDOT, SEMCOG, FHWA and EPA. SEMCOG is responsible for assessing the conformity of the regional analysis included in their Transportation Improvement Program (TIP) and Long-Range Plan. FHWA and EPA will then conduct the review/approval process. The conformity analysis will be performed on the preferred alternative only, once it is put into the TIP and Plan.

Carbon monoxide (CO) impacts with respect to the NAAQS will be determined for each alternative, using CAL3QHC, together with emission factors from the appropriate version of EPA's MOBILE emission factors model.

The burden in annual metric tons of small particulate matter ($PM_{2.5}$) will be determined for each alternative using pollutant emission factors from US EPA's MOBILE emission model and conditions at each site. The appropriate version of MOBILE will be used as determined by the FHWA and EPA. This pollutant burden will be estimated using updated forecasts of intermodal lifts for each alternative, for each site, with the anticipated train and truck activity that would support each forecast. Intermodal terminal vehicle activity will cover visitor and employee automobiles, intermodal trucks serving the site, drayage trucks internal to the site, intermodal cranes, side-loaders, standard locomotives and yard locomotives. It will also consider the paved, or unpaved condition of the site.

Air toxics will be reported in qualitative terms in the DEIS/FEIS for all alternatives.

Indirect/Cumulative Effects – Analysis of these issues will follow the general principles in "Considering Cumulative Effects" prepared by the Council on Environmental Quality, January 1997. That document presents CEQ's principles related to scoping, description of the affected environment and the analysis of environmental consequences. These principles focus the analysis on the relationship of past and future actions on resources, ecosystems, and human communities in order to address their sustainability.

The area to be covered in this CEQ analysis framework will be determined in consultation with MDOT early in the analysis process. Coordination will also occur with the I-94 FEIS and the I-75 DEIS projects to ensure consistency in analysis areas and methods.

The indirect/cumulative effects will cover the shift of NS intermodal activities from the Triple Crown, Oakwood, and Del Ray Yards to the Detroit-Livernois Yard, which NS indicates will happen with or without

consolidation of CP and CN intermodal activity at this terminal area. It will also determine the effects at the CP Expressway, CP Oak, and CN Moterm terminal areas if full intermodal consolidation is to occur.

Survey for Rare, Threatened, and Endangered Species – The first step in this subtask will be to consult with MDOT staff biologists and then the Endangered Species Coordinator of the Wildlife Division of the Michigan Department of Environmental Quality (MDEQ) to determine the nature of field analysis required at the CP Expressway, CP Oak, and CN Moterm intermodal terminals. It will also determine the effects at the CP Oak and CN Moterm terminal areas if full intermodal consolidation is to occur. The Michigan Natural Features Inventory (MNFI) will be consulted and coordination will occur with the U.S. Fish and Wildlife Service. Any survey work that is required will be performed by certified botanists and/or wildlife biologists following the "Guidelines for Conducting Endangered and Threatened Species Surveys" issued by MDEQ. All survey work will be coordinated with the MDEQ Endangered Species Coordinator, and MDOT to ensure that all work fully discloses potential impacts to species and/or habitat. If there are potential impacts, then an evaluation to determine if the species will be jeopardized will identify possible actions, including mitigation.

Wetlands – At the CP Expressway, CP Oak, and CN Moterm terminals this effort will involve coordination with, the Michigan Department of Environmental Quality, the U.S. Fish and Wildlife Service, and U.S. EPA, and will determine the need for permits under Section 404 of the federal Clean Water Act and parts 31, 301 and 303 of the Michigan Natural Resources and Environmental Protection Act. The consultant will delineate all wetlands, determine their functions and values, and determine impacts and required mitigation. The consultant will search for mitigation opportunities, as appropriate. In that case, priority will be given to wetland restoration versus wetland creation. The opportunity for a walk-through of the area will be afforded these agencies, if wetlands are delineated. And, in that case, the consultant will develop a draft Wetland Mitigation Plan for the DEIS and a Final Wetland Mitigation Plan for the FEIS. The Final Plan will include a conceptual drawing of the site(s), cross-sections, and a written mitigation program that addresses how the created site(s) serves to replace the functions and values of the wetlands affected by the project. The written plan will address appropriate state/local typical vegetation and seeding methods, replacement ratios and monitoring requirements, referring to MDOT's standard monitoring plan.

Water Quality, Hydrology and Floodplains – Each terminal will be evaluated for its potential water quality impacts if it is improved/developed, particularly with respect to any required permitting. This will include a description of ambient conditions of water bodies and the likely impact expected.

The primary purpose of an analysis of impacts on hydrology is to protect potable water sources (wells and aquifers), aquatic life, and recreational amenities. A second issue is the potential for a transportation improvement to be flooded or to cause flooding. Analysis will cover the economics of hydraulic structures, as needed.

Any effects on the floodplain that may exist at each terminal will be documented. Location hydraulic studies required by 23 CFR 650, Subpart A, will include a discussion of the following items commensurate with the level of risk for environmental impact for each alternative that encroaches on an existing floodplain: (1) flooding risks; (2) impacts on natural and beneficial floodplain values; (3) probable incompatible floodplain development (i.e., any development that is not consistent with the community's floodplain development plan); (4) measures to minimize floodplain impacts; and, (5) measures to preserve and restore natural and beneficial floodplain values. The size and location of existing and proposed drainage structures at each terminal will be shown on the EPE drawings. Impacts will be reported in the environmental documentation sufficient to satisfy Executive Order 11988, "Floodplain Management," and ensuing regulatory guidance. In particular, MDOT's form for economic assessments of structure hydraulics will be used to summarize information. A preliminary drainage plan will be prepared to ensure that the possible increased runoff from each terminal's increased impervious surface, including any paving of the railroad terminal surface, can be accommodated within the project footprint.

Parklands – The procedures of Section 4(f) of the Department of Transportation Act of 1966 and Section 6(f) of the Land and Water Conservation Fund Act of 1965 will be applied to assess direct and indirect effects on public recreation lands at each terminal. Displacement of resources due to the destruction or alteration of sites will be identified as a direct impact. The potential alteration or isolation of recreational land with respect to its surrounding environment and its users will be assessed and the significance of impacts evaluated. Views of the "owner" of the land involved will be sought. Recreational land that could be affected, directly or indirectly, will be described and mapped.

A detailed 4(f) analysis is required if the project will "use" (as defined by the courts) parklands or public recreation areas or cultural resources on, or eligible for, the National Register of Historic Places (see next section). If no prudent and feasible alternative exists, and if 4(f) land were to be used by the project, a 4(f) statement will be prepared and included in the environmental document.

Historic, Archaeological, and Cultural Resources – The built environments dominating CP Oak, CN Moterm, and CP Expressway Terminals, like that of the Detroit-Livernois Yard, are primarily industrial-commercial.

Flanking residential neighborhoods occur at varying intensities around all of the proposed terminals. Windshield reconnaissance of building stocks at the locations was conducted as a preliminary step in judging the history of site area development. In more recently developed areas, where utilities have not been extensively replaced, fire hydrants were also noted as guide to define the potential phases of development/aging of an area.

While the Detroit-Livernois Yard itself has witnessed extensive loss of its building stocks over the past quarter century, its overall archaeological-historical significance remains unevaluated. Established as the Michigan Central Railroad repair yard in 1874, the location was subject to numerous redevelopment episodes over the next century. It is the opinion of the Michigan SHPO that the yard might be eligible for National Historical Landmark status. So, the requirements of Section 106 review will be fundamentally intensified at this location compared to that of the original work plan. This is considered necessary as federal funds could be spent to alter this terminal site.

The CP Expressway Terminal (City of Detroit) encompasses a portion of the Michigan Central Railroad's cattle yard, which occupied the area from 18th to 20th streets between 1860 and 1880. The yard is additionally associated with the Michigan Central/New York Central passenger station established at this location in 1913. Surrounding building stock is largely twentieth century commercial-industrial, with only minor surviving vestiges of ca. 1870-ca. 1900 developed residential neighborhoods.

The CP Oak terminal site was annexed by the City of Detroit in 1926. Fire hydrant scans along the north side of West Davison Street date the earliest to 1928. Housing stocks to the south of West Davison Street include a few Bungalow and Dutch Colonial Revival examples assignable to a 1920s/1930s setting. The vast majority, however, consist of Cape Cod and Minimal Traditionalist forms attributable to the 1940s through 1970s. Industrial site development, as evidenced by dated hydrants along Artesian, Glendale, and Westwood Streets, can be assigned to a broad 1943 to 1976 setting. Although much of the building stock within this district exhibits utilitarian concrete block and sheet metal exteriors, Art Moderne brick front buildings make a minor appearance.

The CN Moterm Intermodal Terminal was established on unsubdivided lands within Royal Oak Township (City of Ferndale) during the early 1940s. Building stocks within the proposed expansion area consist entirely of industrial-commercial structures built during the ca. 1940-1980 period. Most are of utilitarian design, with only a handful exhibiting traits of late Art Moderne styling. Surrounding residential housing is

eclectic in composition, with stylistic varieties reflective of Bungalow, Dutch Colonial Revival, Cape Cod, and Minimal Traditionalist forms.

In this context, the expected EPE/EIS cultural resources assessment will entail both archaeological and above-ground (historic/architectural) resources evaluation. In the archaeological area, ground conditions and existing land use regimens are such as to likely preclude invasive field activities. Therefore, refinement of the record compiled in the Feasibility Study of identified archaeological sites will be implemented through detailed historical records research relative to both the surrounding neighborhoods and railroad features within the project and the Area of Potential Effect (APE).

As established through previous discussions with the State Historic Preservation Office (SHPO) the project APE will be defined as encompassing a "one block" area, or a distance of 300 feet, extending outwards from the actual expanded terminal area. This will be reconfirmed with the SHPO. To the extent appropriate and allowed, contact will be made with the Advisory Council on Historic Preservation. This will be key to further analysis and the level of effort of this subtask will vary if the APE is changed from the current definition.

Above-ground studies will photodocument and assess National Register of Historic Places (NRHP) eligibility potentials of all existing structures and buildings (over 45 years old) within both the terminal and the surrounding APE. Employing the methodological standard established for the M-15 and I-75 EIS projects, as accepted by the SHPO and MDOT, all pre-1957/1958 buildings within the proposed DIFT acquisition area will be photodocumented and presented on Building Structure Inventory (BSI) card formats. The late dating (post-1940) composition of the residential neighborhoods constituting the APE for the CN Moterm and CP Oak terminals will be photodocumented with map locations and descriptions presented in abbreviated tabular form. In this instance, BSI cards will be prepared for individual buildings typifying the stylistic forms that occur in these neighborhoods. Because of the dominating early (pre-1930) composition of the Detroit-Livernois and CP Expressway APE area neighborhoods, BSI cards will be prepared for all pre-1940 building resources.

If adverse effects are found on properties protected by Section 106 of the National Historic Preservation Act (properties on or eligible for the National Register of Historic Places) or Section 4(f) of the National Transportation Act of 1966 (parklands), then a Draft Section 4(f) Evaluation will be prepared, as noted above. It would likely circulate with the draft EIS. The Final Evaluation would occur with the FEIS and will

document if there is no prudent and feasible alternative to use of Section 4(f) land and all possible planning has occurred to minimize harm.

Hazardous Waste/Materials – This work will involve investigating parcels of property for the presence of environmental contamination. A Project Area Contamination Survey (PACS) was conducted for the DIFT Feasibility Study for the Consolidated Terminal alternative. The PACS included a review of environmental and historic records for potential acquisition sites and those that might affect the project. The PACS effort will be repeated for the CP Expressway, CP Oak, and CN Moterm terminals and the adjacent potential expansion areas. The PACS did not include any on-site inspections for contamination or interviews with business owners or occupants. Therefore, on-site inspections and interviews of potentially affected commercial/industrial sites will be conducted at all four sites. With on-site inspections completed, the next step will be to conduct a Preliminary Site Investigation (PSI) which involve: 1) on-site sampling and testing for contamination impacts at locations identified as potentially impacted; 2) confirmation of the presence of surface and subsurface contamination; and, 3) preparation of a plan including an estimate of costs to manage or remediate contamination. Additional information concerning these two tasks is presented in Tasks 2810 and 2820.

Visual/Aesthetic Conditions - Visual effects of the project can affect the macro scale of the community, as well as the micro scale. These changes will be characterized in terms of “view of the improvement" and "view from the improvement." At the Detroit-Livernois Yard a key element of change of the Consolidate Terminal alternative will be the perimeter road along the north project edge and its vegetative buffering of the site from adjacent areas. Other key elements are: the proposed retaining walls along the truck-only road; bridges that may be reconstructed; and, noise walls, wherever they may be proposed for construction. In conducting this analysis, the consultant will follow the draft policy related to aesthetics (September 2000) promulgated by the Michigan Transportation Commission, and any updates to this document. At the CP Oak Terminal no residential areas are adjacent to the existing yard, nor is it likely any would be adjacent to an expanded yard. The pertinent view is of the yard from I-96. At CN Moterm, a neighborhood borders the facility on the west. An expanded facility could have a neighborhood bordering on the east. Here buffers will be examined to protect the neighborhoods. Access routes to all sites will also be considered. CP Expressway is somewhat isolated from residential neighborhoods. But, depending on the degree of possible expansion, buffering will also be considered here.

Energy – Guidance in FHWA Advisory 6640.8A will be followed in providing analysis of energy use. The mode shift to rail is energy efficient and will be quantified.

Construction – Construction activities result primarily in short-term environmental impacts, although the long-term effects of resource consumption, disruption of substrata (groundwater or contamination), and economic losses are also possible. Short-term impacts include disruption of traffic, increased noise, localized degradation of air quality, vibration, reduced access to properties, and other less noticeable inconveniences. These effects will be documented in the EIS along with phasing of the preferred/recommended alternative for implementation. To establish priorities for construction staging, access, safety and business/neighborhood impacts will be reviewed.

Permits – A number of permits could potentially be required with expansion of each existing terminal. The DEIS will enumerate those permits that may be needed. For example, stormwater from sites to be acquired, or newly paved surfaces, may be subject to National Pollutant Discharge Elimination System (NPDES) permitting. Permits would be required for wetlands and stormwater discharges during construction. Applicable are sections 401, 402(b) and 404 of the federal Clean Water Act, and parts 31, 301, and 303 of the Michigan Natural Resources and Environmental Protection Act. Also required, will be a permit pursuant to P.A. 451 of the 1994 Michigan Natural Resources and Environmental Protection Act, Part 91 Soil Erosion and Sedimentation Control, for all earth change activities which disturb one or more acres of land or if the earth change is within 500 feet of a lake or stream.

Other Services – It is understood by the consultant that there are several areas where major work efforts would occur only after approval: final wetland mitigation plans and specifications; and, additional Phase II cultural resource analysis. While the consultant is prepared to perform these additional activities, it is understood that MDOT reserves the right to determine what course of action to take in the event any additional studies are triggered and will issue written instructions on how to proceed.

Task 2320 - Conduct Additional EPE Aerial Photography and Mapping

While Wayne County aerial photography is appropriate for most planning needs, it can only provide two-foot contours. More accurate vertical data are required where there are over- and underpasses. These may be involved at CP Oak and possibly at the other existing terminals. Aerial photography from Advanced Mapping Technologies will be purchased, as necessary. Fieldwork will be conducted in any case to calibrate the new photography and pick up additional detail, but much less fieldwork is necessary than if the Wayne County photography were used. Additional ground survey work will be conducted around bridges, retaining walls and locations where noise walls are considered. This survey work is discussed in Task 2510.

Task 2330 - Collect Additional EPE Geotechnical Data

If geotechnical work is required at the CP Expressway, CP Oak and for CN Moterm terminals, existing geotechnical resources from the existing work program will be shifted to these sites.

Task 2360 - Prepare Additional Documentation for DEIS

The DEIS will incorporate the Improve/Develop Existing Terminals with Federal Funding/Oversight for full evaluation of impacts consistent with the analysis to be performed at an expanded Detroit-Livernois Yard to accommodate complete consolidation of intermodal activities in the Southeast Michigan region.

Task 2380 – Provide Additional DEIS Public Availability/ Public Hearing

The public hearings on the DEIS will be conducted at, at least, two locations on two separate days in addition to the original scope of work

Task 2510 – Conduct Additional Analyses to Determine Recommended Alternative

This task will advance an alternative(s) to design or it will recommend taking no action. The consultant will provide sufficient information to MDOT to make a final recommendation that will be documented in the draft Recommended Alternative/Engineering Report.

The task consists of two components: 1) a shift of work that was originally to be performed by Arbor Vista Transportation, Inc., to The Corradino Group team; and, 2) performance of EPE work on the potential improvement/development of the CP Expressway, CP Oak, and CN Moterm terminals, as well as a new layout(s) for NS/CSX within the confines of the existing Detroit-Livernois Yard.

Work Previously Assigned to Arbor Vista Transportation

The following is a list of items previously assigned to Arbor Vista Transportation. The task numbering is drawn from the earlier work program.

2.1 Trackage Rights – Determine trackage rights between West Detroit junction and Livernois Yard, west of CP LOU – modifications to CP rights for setout and pickup. Assume one meeting with operating personnel for each of the five parties (CN, CP, CSX, NS, and Conrail) and provide a draft letter of understanding with exhibits for the EIS.

2.2 Terminal Design Standards – Meet and discuss engineering issues with each of the five parties. Work with railroads on design exceptions to their various standards to optimize layouts.

2.3 Terminal Layout and Description of Operations – Meet and discuss with each of the five parties the estimated track and turnouts, including plans, profiles, and cross sections for the various options for track layouts and locations as specified below:

2.3.1 CN/CP Tracks North of Mainline – Layout approximately 120,000 feet of track and 50 turnouts.

2.3.2 CSX/NS Tracks South of Mainline – Layout approximately 120,000 feet of track and 50 turnouts (assumes availability of Urban Engineers plan in electronic format). Modify Conrail facilities to connect with Detroit-Livernois Yard.

2.3.3 Michigan Connection and Track West of CP LOU – Layout approximately 4 turnouts and 3,000 feet of track, relocate interlocking, investigate utilities and structure alternatives.

2.3.4 West Detroit Interlocking – Define changes to allow moves from Livernois Yard and Amtrak into the CN mainline at West Detroit and CP movements from either mainline to Livernois Yard. Define approximately 2,000 feet of track and 15 turnouts, track shifts, and lead changes for Conrail. Assumes all existing structures can be used.

2.3.5 Dix to Delray Interlockings – Recommend Dix, Waterman, and Delray interlocking changes, and propose storage tracks. Layout capacity enhancement at the interlockings based upon the railroads input.

2.3.6 Signal requirements – Identify existing signal systems and signal location, identify changes necessary as result of track changes. Propose signaling to be used for final designs. Detailed signal design will not be performed for this EPE effort.

2.3.7 Internal Services such as Car Repair, Locomotive Servicing, Trailer Repair, Etc. – Layout necessary trackage after determining requirements of each railroad.

2.3.8 Buildings – Site CN and CP administration and crew facilities (included as part of truck gate arrangements). Does not include CSX and NX. Provide preliminary size, location, and costs (space requirements only, no detailed plans).

2.3.9 Arrival / Departure Gates – Layout CN and CP gates, and critique of CSX and NX gates.

2.3.10 Retention Requirements – Part of road work; not included here.

2.3.11 Sound Walls – Not part of this task.

2.3.12 Lighting – Develop a preliminary lighting layout and provide illustration. Develop cost and illumination details for EIS.

2.3.13 Security Issues – Propose perimeter and access road security.

2.3.14 Cost Estimates – Estimate costs for the above items.

2.4 Rail Access and Off-Site Improvements – Covered to the extent needed in 2.3.

2.7 Railroad Support – Not part of scope.

2.8 Passenger Train Operations – Propose solutions for Amtrak issues between CP LOU and Vinewood via West Detroit connection. Coordinate with HNTB on proposed Amtrak upgrades and impacts to DIFT project.

3.0 Commercial Relations – Not part of scope.

4.1 Pre-Construction Impacts – Not part of scope.

4.2 Construction Impacts – Develop proposed staging plans for railroad construction for all items listed above.

6.1 Technical Support – Assist with EIS requirements, other than above.

7.0 Public Involvement – Assist with Public meeting preparation and involvement.

Work Related to Improving/Developing Existing Terminals

The CP Expressway, CP Oak, and CN Moterm Terminals will be field reviewed and an evaluation will be made of existing rail facilities and infrastructure, and how they may be improved and expanded to meet projected 2025-year projected intermodal traffic. This evaluation will allow comparison of consolidating all four railroads at the existing Detroit-Livernois Yard to improving/developing each individual intermodal terminal to meet the projected 2025 intermodal traffic forecast.

Preliminary railroad yard layouts and infrastructure diagrams will be developed to determine a preliminary footprint to begin environmental analysis. Site visits of each terminal (approximately three visits) will be required to review the existing condition, and determine if the proposed layouts have any adverse effects. Additional coordination meetings (four each) with each railroad will be required to discuss their current operations and future plans at each terminal. To establish priorities for construction staging, access, safety, and business/neighborhood impacts will be reviewed in cooperation with MDOT and the railroads. Then a detailed and refined conceptual layout of each terminal will be developed. This will include an EPE level of detail of related infrastructure improvements around each terminal. As part of developing the detailed yard and infrastructure layouts, the following items will be included:

- ?? Track layout
- ?? Parking layout
- ?? Storage areas
- ?? Gate locations
- ?? Lighting layout
- ?? Signal and switches
- ?? Grade separations, as required
- ?? Horizontal and vertical alignments for any new or relocated roadways
- ?? Drainage analysis and recommendations for terminals and roadways: sizing detention basins and storm sewers, or determining outlet improvements.
- ?? Typical sections of the yard and roadways
- ?? Cost estimates
- ?? Recommendations related to any existing bridges affected by yard or roadway improvements

All items will be developed, as required, for use as public exhibits and inclusion in the EIS documentation.

Task 2525 – Prepare and Review Engineering Report

A Recommended Alternative/Engineering Report will be prepared for improvements both on existing railroad controlled property and the proposed expansion areas. It will include a description of the process that led to the conclusion and the supporting EPE. The report will include plan and profile sheets at half size (11x17 format) and include cost estimates on MDOT's project scoping checklist. Representative typical sections and clear view areas will also be provided. Cost data will be consistent with MDOT estimating forms. The report will also address project staging and maintenance of traffic.

Task 2525 – Prepare and Review Access Justification Report

There will be no change on this task.

Task 2530 - Prepare FEIS

The FEIS will cover comments related to two "action" alternatives, as well as the No Action Alternative.

Task 2550 – Obtain ROD

There will be no change to this task.

Task 2810 – Conduct Additional Project Area Contamination Survey (PACS)

The Project Area Contamination Survey (PACS) represents the first step in the due diligence process, which seeks to determine the environmental condition of a parcel of real property before it is acquired by MDOT. Additional due diligence in the form of a Preliminary Site Investigation (PSI) is required for certain parcels to confirm the presence of contamination (see Task 2820). A PACS was conducted for the DIFT Feasibility Study. The PACS included a review of environmental and historic records for sites that were anticipated to be acquired for the Consolidated Terminal Alternative. This effort will be repeated for the CP Expressway, CP Oak, and CN Moterm Terminals.

The results of the PACS investigation at the Detroit-Livernois Yard indicate that many potential acquisition sites could have contamination, most commonly, leaking underground petroleum storage tanks. Many of the sites within the Detroit-Livernois Yard expansion area have been used for a number of years as automotive salvage yards or metal recycling facilities. Additionally, several sites, including former clay pits, contain fill material of unknown origin and quality, most notably at six sites. The findings of the PACS indicated that additional investigation, including, at a minimum, on-site inspections and interviews of owner/occupants of sites should be attempted to assess the environmental condition of the Detroit-Livernois Yard expansion area for the Consolidated Terminal alternative. To this end, the scope for the original EPE/EIS phase of work will consist first of on-site inspections and interviews of owners/occupants of commercial/industrial properties within the proposed DIFT expansion area. The results of the PACS at the other terminal expansion areas will determine the need for work under task 2820 at those locations.

This work will be coordinated with MDOT's Real Estate staff, which will be preparing the Conceptual Relocation Report. This approach provides business owners an early opportunity to state any unique problems (i.e., special zoning requirements, or proximity to raw material suppliers and/or customers, etc.) in relocating their business.

The results of the site inspections and interviews will be presented in an addendum to the PACS. The PACS will form the basis for identifying parcels of property that will require a Preliminary Site Investigation (PSI) to identify potential contamination impacts.

Task 2820 – Conduct Additional Preliminary Site Investigation (PSI) for Contamination

The original scope of work for the PSI at the Detroit-Livernois Yard calls for investigations at approximately 15 sites that are suspected to have contamination impacts. It is anticipated that at CP Expressway, CP Oak, and CN Moterm, taken together, another 10 may be encountered. At the Detroit- Livernois Yard, these "targeted sites" are heavy industrial locations, such as scrap yards, auto salvage yards and manufacturing plants, and other sites that are suspected to contain contaminated fill. At the other terminals, manufacturing and industrial uses predominate, so a smaller number of sites seem appropriate. Prior to conducting on-site sampling and testing, an access agreement between the property owner and MDOT will be required. If such an agreement cannot be obtained, the subsurface drilling and sampling will be conducted in the adjacent public right-of-way, (with permission from the applicable public owner). The scope of work assumes that an

average of three soil test borings will be conducted per site and that the borings will not extend beyond the upper twelve feet. Five samples per site will be analyzed for volatile and semi-volatile organic compounds, metals and PCBs. The actual number of samples, media tested, and testing parameters for each site will depend on the contaminant source(s), site conditions and other factors.

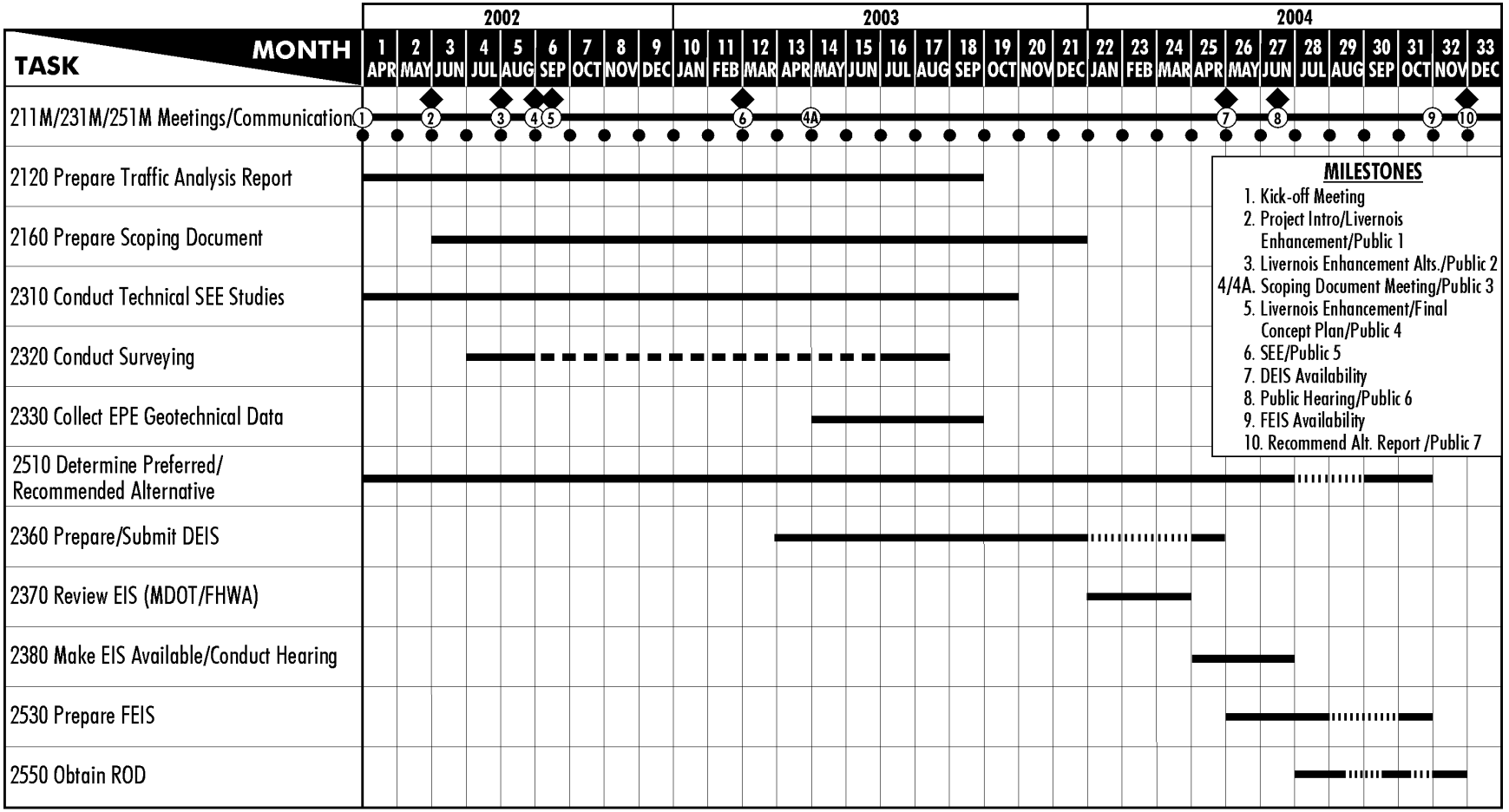
Senior consultant personnel (Corradino) who are experienced in performing site investigations will conduct the PSI. Specialized services such as drilling and laboratory testing will be undertaken by a member of the consulting team (SOMAT).

Schedule

The original DIFT EIS/EPE phase of work was scheduled for completion by the end of February 2004 (i.e. 23 months). The expanded scope of work extends that schedule to the end of December 2004. The critical path of the project still runs through the SEE Studies (Task 2310). It will be fed by the Traffic Analysis Task 2120, wherein new forecasts will be developed through use of a commodity flow model. The first set of forecasts will be available during the spring of 2003. The traffic analysis work will be completed by the end of September 2003. The basic SEE work will be finished by the end of October 2003. These two tasks will then feed the DEIS/Hearing/FEIS tasks. The DEIS will be ready for MDOT/FHWA review by the beginning of 2004. The public hearings on the DEIS are scheduled for June 2004. The FEIS is expected to be available for public review by December 2004 with the ROD to follow.

Figure 1

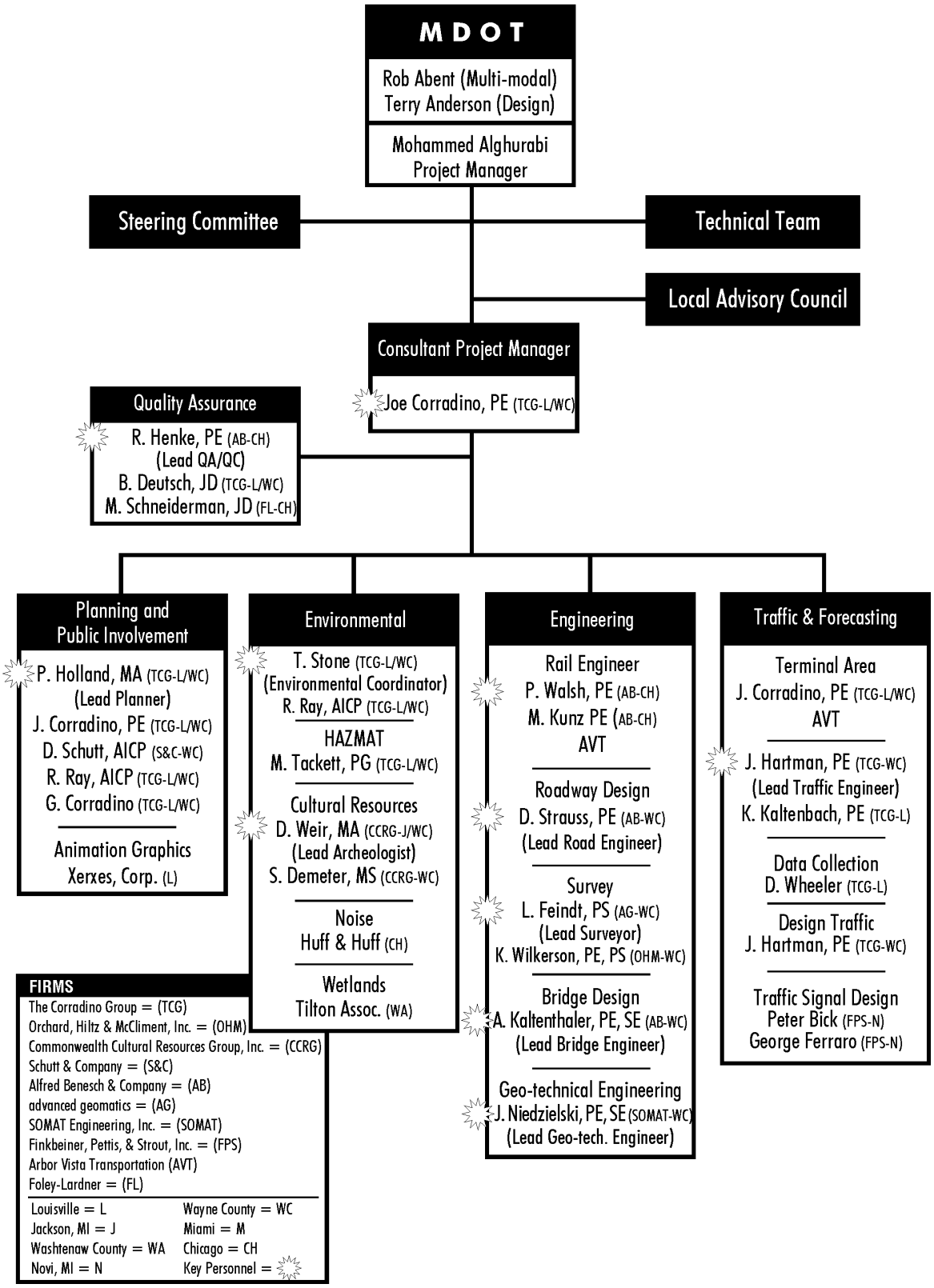
Detroit Intermodal Freight Terminal Project
Revised EPE/EIS Schedule
(January 1, 2003)



Detroit Intermodal Freight Terminal Project

Organization

(January 1, 2003)



Detroit Intermodal Freight Terminal Project
Phase II: EPE/EIS – Amendment 3
Index of Personnel

Key Personnel	
Name	**Project Role**
Joe Corradino	Project Manager, The Corradino Group
Pat Holland	Lead Planner, The Corradino Group
Ted Stone	Lead Environmental Planner, The Corradino Group
Randy Henke	Lead Railroad/Terminal Engineer, Alfred Benesch & Company
Doug Strauss	Lead Road Engineer, Alfred Benesch & Company
Al Kaltenthaler	Lead Bridge Engineer, Alfred Benesch & Company
Larry Feindt	Lead Project Surveyor, Advanced Geomatics
Jim Hartman	Lead Traffic Engineer, The Corradino Group
John Niedzielski	Lead Geotechnical Engineer, SOMAT Engineering, Inc.
Michael Goodkind	Lead Quality Assurance/Quality Control: Engineering, Alfred Benesch & Company
Burt Deutsch	Quality Assurance/Quality Control: EIS, The Corradino Group
Michael Schneiderman	Quality Assurance/Quality Control: EIS, Foley & Lardner
Donald Weir	Lead Archaeologist, Commonwealth Cultural Resources Group
Other Personnel	
The Corradino Group	
Ken Kaltenbach	Traffic Modeler
Richard Ray	Assist with Environmental Documents
Mike Tackett	Assist with Environmental Documents
Alfred Benesch & Company	
Andrew Walsh	Railroad/Terminal Engineer
Michael Kunz	Railroad/Terminal Engineer
Orchard, Hiltz & McCliment, Inc.	
Kenneth Wilkerson	Surveyor
Commonwealth Cultural Resources Group, Inc.	
Steve Demeter	Architectural Historian
Schutt & Company	
Deborah Schutt	Public Participation Coordinator, Data Collection Support
Finkbeiner, Pettis & Strout, Inc.	
Peter Bick	Traffic Engineer
George Ferraro	Traffic Engineer
Arbor Vista Transportation - Forecasting	
Huff & Huff - Air Quality	
RC Engineering – Economic Analysis	
SOMAT & Materials Testing – Geotech and Hazmat Testing	
The Sterling Corporation and Berg Muirhead and Associates - Communications	
Tilton Associates -Wetlands	
Xerxes Corporation - Animation Graphics	

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